

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
31 July 2003 (31.07.2003)

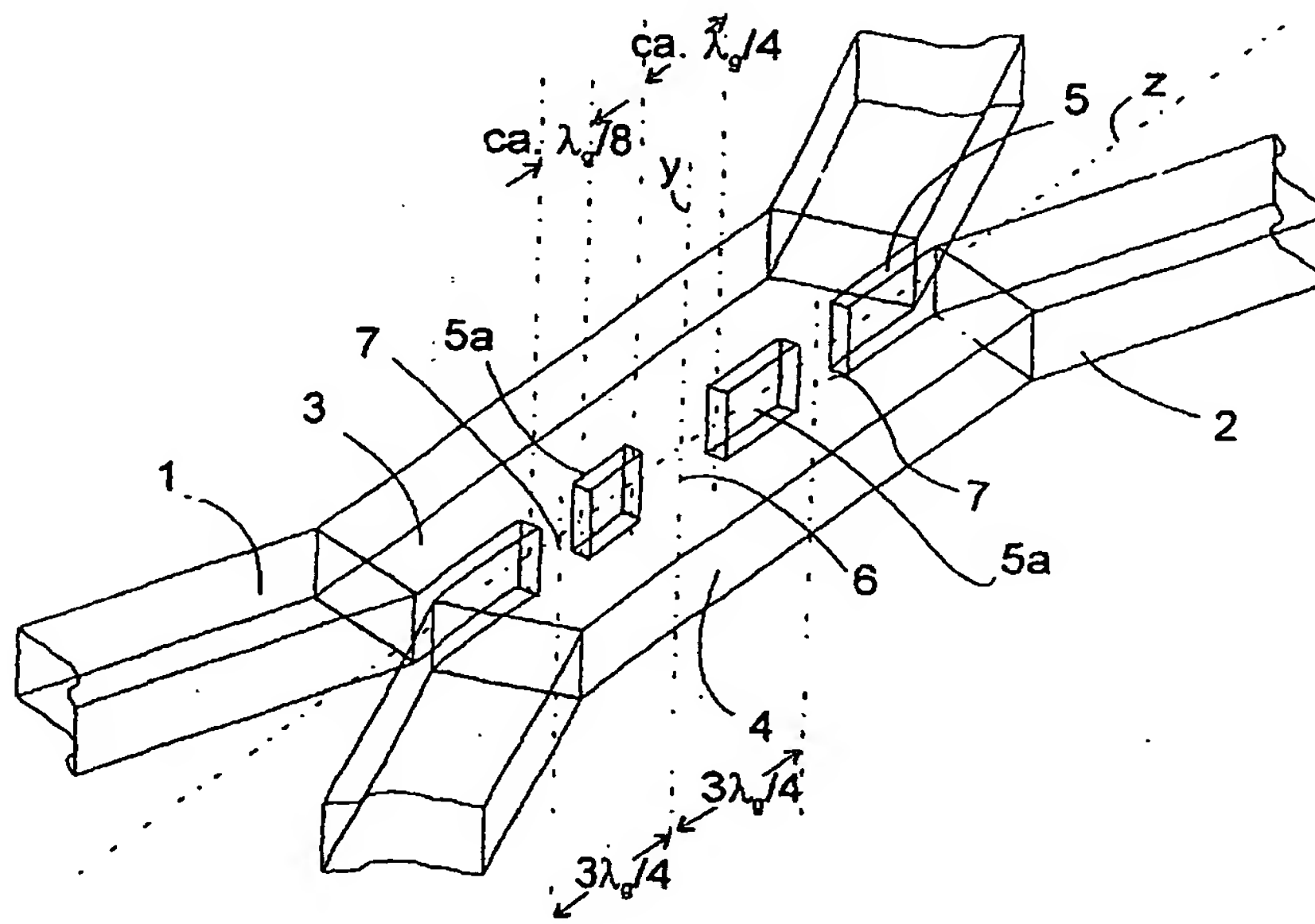
PCT

(10) International Publication Number  
WO 03/063289 A1

- (51) International Patent Classification<sup>7</sup>: H01P 3/12 (74) Agent: Camp, Ronald; Marconi Intellectual Property, Marrable House, The Vineyards, Great Baddow, Chelmsford, Essex, CM2 7QS (GB).
- (21) International Application Number: PCT/IB03/00513
- (22) International Filing Date: 23 January 2003 (23.01.2003) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: P10202644.5 23 January 2002 (23.01.2002) DE
- (71) Applicant (*for all designated States except US*): Marconi Communications GMBH [DE/DE]; Gerberstrasse 33, 71520 Backnang (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): ROSENBERG Uwe [DE/DE]; Silberpappelweg 29, 71522 Backnang (DE). BEIS, Konstantinos [GR/DE]; Murrhardter Str., 71522 Backnang (DE).
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report

[Continued on next page]

(54) Title: HOLLOW WAVEGUIDE DIRECTIONAL COUPLER



(57) Abstract: A hollow waveguide directional coupler comprises two hollow waveguide Sections (3,4) that are coupled to each other by a plurality of coupling openings (6,7) formed in a wall (5) extending between the hollow waveguide sections (3,4). Two adjacent coupling openings (6,7) have a distance of  $3\lambda_g/4$  from each other,  $\lambda_g$  being the wavelength of the nominal centre frequency of the operating frequency range of the directional coupler.

502/079



WO 03/063289 A1